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PATENT SPECIFICATION

Application Date: Sept. 25, 1931. No. 26,774/31. 377,840

(Patent of Addition to No. 372,653: dated Oct. 13, 1930.)

Complete Accepted: Aug. 4, 1932.

COMPLETE SPECIFICATION.

Improvements in Box Magazines for Small Arms.

I, Dr. ERICH KNOLLER, an Austrian Citizen, of Steyr, Austria, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

In Specification No. 372,653 rim cartridges are arranged in two rows in echelon in the magazine of a firearm, in which the central portions of the cartridges are pressed towards the lips of the magazine and a member is arranged to retain the second cartridge below the lip so that there is a free space allowing the rim on the base of the first cartridge to move freely forward past the rim of the cartridge in the second position.

The present invention relates to improvements in or modifications of the invention described in this prior specification.

According to the invention, the retaining device consists of two inwardly directed projections fixed opposite to one another on the inner surfaces of the side walls of the magazine and extending so far into the path of the row of projectiles on their respective sides that there is always one projection on the rim, or the rear part of the casing in front of the rim, of the second cartridge preventing its further movement towards the lip of the magazine until the room occupied by the cartridge in the position ready to be removed from the magazine has been freed. These retaining or holding projections must obviously be arranged at the correct positions and their length and form must be such that the parts of their surfaces towards the mouth of the magazine are formed so as to prevent the first cartridge from being moved downwards. The projections can be secured to the walls by any suitable fastening means, for example soldered. They can be formed by suitably pressing inwards the walls of the magazine at the required positions.

The accompanying drawings illustrate an example of magazines according to the invention.

Fig. 1 is a central vertical section and Fig. 1a a cross-section seen from the rear at right angles to Fig. 1.

Figs. 2 and 2a are views similar to Figs. 1 and 1a showing the cartridges in a succeeding stage.

In the position shown in Figs. 1 and 1a, the partially emptied magazine c still contains four cartridges d. Only the front portions of the two cartridges nearest to the mouth of the magazine are in contact, the rear parts of their casings are removed from one another; there is a sufficient free space at their rear ends, so that in the displacement of the first cartridge d^1, which is in the position ready to be moved from the magazine into the receiver, its rim cannot foul the rim of the succeeding cartridge d^2.

The whole length of the first cartridge, which is one of the right hand row, is pressed against the lips or parts of the lips c^1 of the magazine. The next cartridge d^2, the second, belongs to the left hand row. The inwardly directed projections h are applied to the side walls, in the example shown they are displaced from the rear wall c^2 of the magazine so as to lie in front of the rims of the cartridge arranged in echelon in the magazine, the inclined rear surface of each projection conforming to the shape of the casing and holding back the rear end of the cartridge which is at that time in the second position. The third and fourth cartridges are in contact with the second for nearly the whole length of their casings. They are themselves in contact and transmit the pressure of the feeding spring e through a feeding plate from the cartridges upwards to the cartridge in the first position. The latter is pressed against the lips c^1 of the magazine by the pressure exerted on its central and front portions by the second and third cartridges. The projection h on the left wall of the magazine is in the path of the second cartridge d^2, the rear ends of these three cartridges take up such relative positions that neither the rim of the second or third cartridges extend into the part occupied by the rim of the first cartridge, but a sufficient space is left between them for the purpose described.

The front surface of the projection h

[*Price* 1/-]

on the right hand side is inclined downwards from the wall of the magazine below the casing of the first cartridge d^1 and prevents any downward movement of the cartridge such as might occur on transport or due to the shaking on firing. These two functions, namely retaining the second cartridge and preventing the downward movement of the first cartridge, are effected by the position, form and longitudinal extension of the fixed projections h at the side walls of the magazine. The projections are, in the example illustrated, pressed inwardly from the side walls.

In the position shown in Figs. 2 and 2a there are only three cartridges in the magazine. The foremost cartridge d^1, shown in Fig. 1a, has been moved by the breech bolt from the magazine into the receiver of the weapon. The cartridge d^2 previously in the position shown in Figs. 1 and 1a is pressed, after the space occupied by the cartridge d^1 has been freed, into the uppermost position, its whole length lying close to the lips of the magazine, and is held by the projection h on the left hand side from downward motion. The cartridge formerly in the third place is advanced to the second place and is held back by the projection h on the right hand wall of the magazine, as previously explained.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. Cartridge magazines according to Claim 1 of Specification No. 372,653, in which the device arranged to retain the base of the second cartridge in a position in which there is a free space allowing the rim of the first cartridge to move freely forward over the second cartridge, consists of two inwardly directed projections fixed opposite to one another on the inner surfaces of the side walls of the magazine extending so far into the path of the row of projectiles on their respective sides that there is always one projection on the rim, or the rear part of the casing before the rim, of the second cartridge preventing its further movement towards the lip of the magazine until the space, occupied by the cartridge in the position ready to be removed from the magazine, has been freed.

2. Cartridge magazines according to Claim 1, in which the parts of the retaining projections turned towards the open end of the magazine are formed so as to prevent the cartridge which is in the position to be removed from the magazine from being moved downwards.

3. Cartridge magazines according to Claim 1 or Claim 2, in which the retaining projections are formed by restricting or forcing inwards the parts of the side walls of the magazine along which the rims of the cartridges or part of the cartridge casings in front of the rims are adapted to slide.

Dated this 25th day of September, 1931.

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42/50 Knollers

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377,840 COMPLETE SPECIFICATION

1 SHEET

[This Drawing is a reproduction of the Original on a reduced scale]

Fig. 1a.

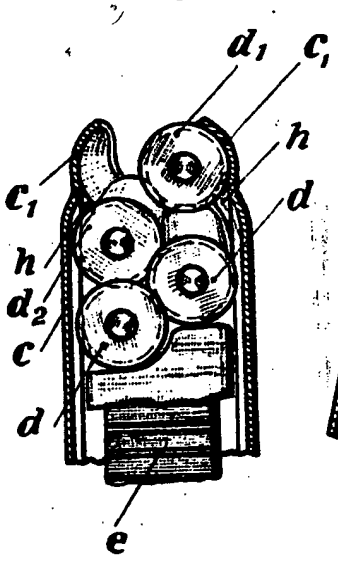


Fig. 1.

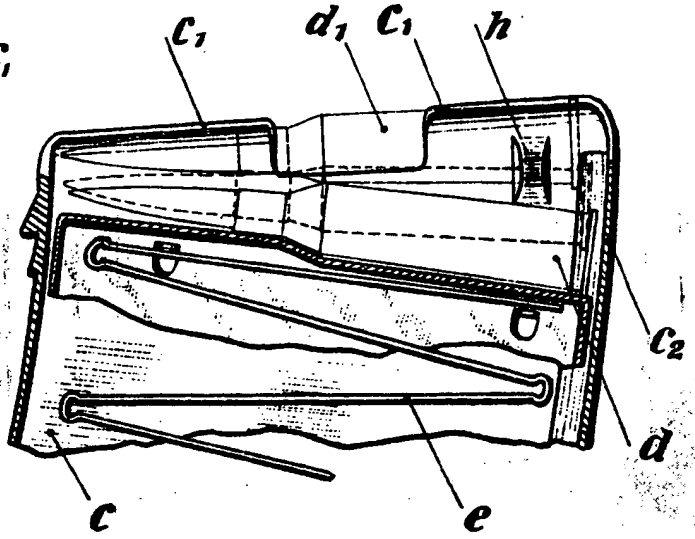


Fig. 2a.

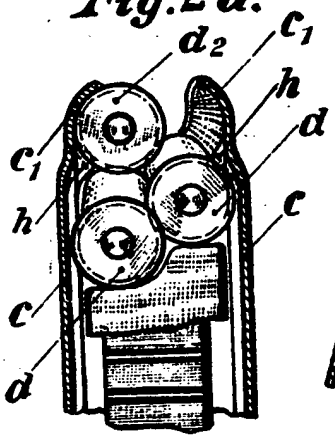
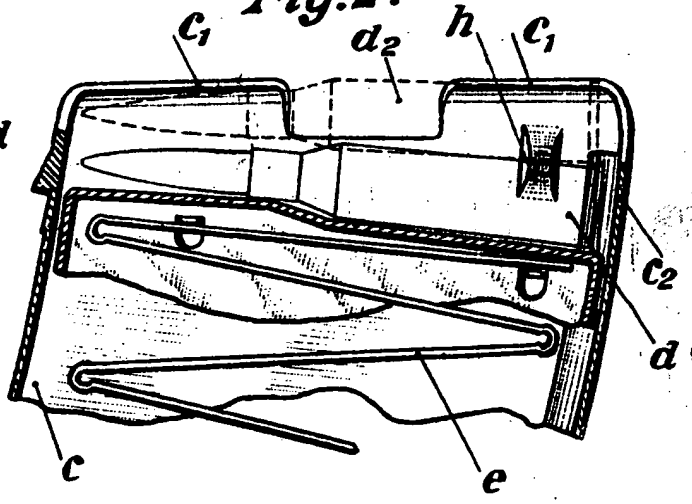


Fig. 2.



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